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(54) TREATMENT OF LIQUID CONTAINING IRON ION AND MANGANESE ION

(57)Abstract:

PURPOSE: To separate the liquid containing Fe and Mn ions to liquid which contains less amount of Fe and Mn ions these salts, and to liquid in which ions and salts of Fe and Mn have been condensed, by passing said liquid through a reverse permeable film device in reducing atmosphere.

CONSTITUTION: After acidic liquid 1 containing Fe and Mn ions is charged into reservoir tank A and the concn. is uniformized, the liquid is taken out from tank A and liquid 3 containing a reducing agent, such as sodium sulfite, etc., is added to the liquid in more than equivalent to the Fe and Mn ions contained. Moreover, germicide and algicide, such as formalin, copper sulfate, etc., are added to the liquid and the liquid is passed into the reverse permeable film device B in a reducing atmosphere irradiating ultraviolet ray E, etc., and passed through the device keeping germicidal state or the like under a pressure. The liquid is separated to film permeable liquid 5 which does not contain metallic ions and these salts and to liquid 4 in which they have been condensed. Alkali agent 6 such as slaked lime and oxidizing agent 8 such as air are added to the condensed liquid to settle the metallic ions in the reaction tank C, and the slurry of sediment is supplied to sedimentation separator D and separated to treated water 9 and sediment 10.

